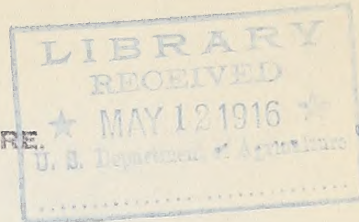


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY,
WASHINGTON, D. C.

FOREST ENTOMOLOGY. 13

May 12, 1916.

Brief Information on the
RED SPIDER and ITS CONTROL.

Character and Extent of Damage.- During a protracted drought the red spider is likely to become very injurious, attacking a great variety of plants. Whole trees, especially seedlings and nursery stock, are apt to have their foliage killed by it.

Evidence of Infestation.- Pale, brownish spots which may later cover the foliage of the entire plant and a web sometimes so dense as to be plainly visible at a considerable distance appear on the leaves. On examination with a magnifying lens the affected leaves are found bearing numerous, tiny, pearl-like eggs, brownish or reddish little creatures running about, or the glistening empty egg shells and cast skins of the mites.

Seasonal History and Habits.- "Red spider" is the name most often applied to two species of web-spinning mites. Mites differ from true insects in having four pairs of legs in the adult stage. They pass the winter as adult females on various wild plants. In the spring they ascend plants and start egg laying at the rate of 5 to 10 eggs per day for a period of 8 to 12 days. During hot, dry weather the eggs hatch, in about 4 days after having been laid, into young mites which commence feeding almost immediately. They reach maturity in 10 to 14 days after hatching, depending on the season and locality. Many generations follow one another in course of one summer. Usually, by the time their presence is discovered they are already very numerous. They live and feed in colonies and their feeding consists in sucking the juices from leaves.

Remedies.-

A stiff stream of water, frequently applied, will rid plants of red spider in many cases.

Individual trees of the kinds that expose most of both surfaces of their leaves to the sun, dust with powdered sulphur.

Flour paste prepared as follows:

(Small quantity). Cook $\frac{1}{2}$ lb. of flour in 1 qt. of water until it becomes a uniform paste, then pour into 2-3 galls. of water.

(Large quantity). 8 galls. of paste (1 lb. flour to 1 gall. water) to 100 galls. of water.

Spray with tin atomizer or power pump, depending on area to be treated. Make at least two applications with a 7-day interval between them.

A. D. HOPKINS,

Forest Entomologist.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
CHICAGO, ILL.

May 11, 1912.

My dear Sir,
I have received your letter of the 10th inst.

concerning the matter of the proposed change in the name of the Department of Chemistry. I have given this matter very careful consideration and am glad to hear that you are in favor of the change.

I have discussed this matter with the members of the Department and they are all in favor of the change. I have also discussed it with the members of the Faculty and they are also in favor of the change. I have therefore decided to recommend to the Board of Trustees that the name of the Department be changed from the Department of Chemistry to the Department of Chemical Science.

I have also discussed this matter with the members of the Board of Trustees and they are also in favor of the change. I have therefore decided to recommend to the Board of Trustees that the name of the Department be changed from the Department of Chemistry to the Department of Chemical Science. I have also discussed this matter with the members of the Board of Trustees and they are also in favor of the change. I have therefore decided to recommend to the Board of Trustees that the name of the Department be changed from the Department of Chemistry to the Department of Chemical Science.

Sincerely,
J. C. Smith

I have also discussed this matter with the members of the Board of Trustees and they are also in favor of the change. I have therefore decided to recommend to the Board of Trustees that the name of the Department be changed from the Department of Chemistry to the Department of Chemical Science. I have also discussed this matter with the members of the Board of Trustees and they are also in favor of the change. I have therefore decided to recommend to the Board of Trustees that the name of the Department be changed from the Department of Chemistry to the Department of Chemical Science.

J. C. Smith

Very truly yours,
J. C. Smith